

**Claims:**

What is claimed is:

1. A system for communicating information about server resources between servers in a cluster, comprising:
  - a cluster having a plurality of servers, including a first server and a second server;
  - a set of resources or services on said first server that may be used by other servers in the cluster; and,
  - wherein said first server sends an advertisement of its services to other servers in the cluster,
  - wherein if said second server determines it is out of synchronization with said first server, or missed an advertisement, said second server makes a point-to-point request to said first server requesting any advertisements missed, and,
  - wherein said first server responds to said point-to-point request by sending updated information to said second server.
2. The system of claim 1 wherein said request is in the form of an http request.
3. The system of claim 1 wherein each member of the cluster receives the advertisement, but those members who do not need to be updated ignore the advertisement.
4. The system of claim 1 wherein a third server may be newly added to the cluster, and wherein said third server waits for advertisements and then makes point-to-point requests to each server requesting advertisements it missed from that particular

server.

5. The system of claim 1 wherein the request is a request to retrieve an update to or a copy of the sending servers JNDI tree.

6. The system of claim 5 wherein the determination as to whether the first server is out of synchronization with said first server, or missed an advertisement, is made by determining that the first server's JNDI tree is out of synchronization with the second server's JNDI tree.

7. The system of claim 6 wherein the receipt of updated information at said second server is used to synchronize its internal JNDI tree with the resources provided at first server.

8. The system of claim 5 wherein as part of the advertisement the first server packages a JNDI update of all its services and multicasts the package to all cluster members.

9. A method of communicating information about server resources between servers in a cluster, comprising the steps of:

providing a cluster including a first server and a second server, and resources operating thereon;

sending an advertisement from said first server to other servers in the cluster announcing the resources or services on said first server;

subsequently, if said second server determines it is out of synchronization with said first server, or missed an advertisement, making a point-to-point request from said second server to said first server requesting any advertisements missed; and,

receiving updated information from said first server at said second server and updating said second server accordingly.

10. The method of claim 9 wherein said request is in the form of an http request.

11. The method of claim 9 wherein each member of the cluster receives the advertisement, but those members who do not need to be updated ignore the advertisement.

12. The method of claim 9 wherein a third server may be newly added to the cluster, and wherein said third server waits for advertisements and then makes point-to-point requests to each server requesting advertisements it missed from that particular server.

13. The method of claim 9 wherein the request is a request to retrieve an update to or a copy of the sending servers JNDI tree.

14. The method of claim 13 wherein the determination as to whether the first server is out of synchronization with said first server, or missed an advertisement, is made by determining that the first server's JNDI tree is out of synchronization with the second server's JNDI tree.

15. The method of claim 14 wherein the receipt of updated information at said second server is used to synchronize its internal JNDI tree with the resources provided at first server.

16. The method of claim 13 wherein as part of the advertisement the first server packages a JNDI update of all its services and multicasts the package to all cluster members.

17. A computer readable medium including instructions stored thereon which when executed cause the computer or computers to perform the steps of :

    providing a cluster including a first server and a second server, and resources operating thereon;

    sending an advertisement from said first server to other servers in the cluster announcing the resources on said first server;

    subsequently, if said second server determines it is out of synchronization with said first server, or missed an advertisement, making a point-to-point request from said second server to said first server requesting any advertisements missed; and,

    receiving updated information from said first server at said second server and updating said second server accordingly.

18. The computer readable medium of claim 17 wherein said request is in the form of an http request.

19. The computer readable medium of claim 17 wherein each member of the cluster receives the advertisement, but those members who do not need to be updated ignore the advertisement.

20. The computer readable medium of claim 17 wherein a third server may be newly added to the cluster, and wherein said third server waits for advertisements and then makes point-to-point requests to each server requesting advertisements it missed from that particular server.

21. The computer readable medium of claim 17 wherein the request is a request to retrieve an update to or a copy of the sending servers JNDI tree.
22. The computer readable medium of claim 21 wherein the determination as to whether the first server is out of synchronization with said first server, or missed an advertisement, is made by determining that the first server's JNDI tree is out of synchronization with the second server's JNDI tree.
23. The computer readable medium of claim 22 wherein the receipt of updated information at said second server is used to synchronize its internal JNDI tree with the resources provided at first server.
24. The computer readable medium of claim 21 wherein as part of the advertisement the first server packages a JNDI update of all of its services and multicasts the package to all cluster members.